

REMARKS

Miscellaneous claim amendments

Claim 2 has been amended to correct a grammatical error. Applicants respectfully submit that this change does not affect the scope of the claim; is not in response to any rejection; and that no file wrapper estoppel should result.

Claim 5 has been amended to change “consisting of” to --comprising--. This change is to avoid any implication of limitation from the traditional language “consisting of.” This change is broadening rather than narrowing and is not in response to any rejection.

Claim 7 and 8 have been amended to improve their form, since the claim from which they depend recites alternatives and the limitations of 7 and 8 referred to only one of the alternatives without indicating explicitly that that alternative had been chosen. Applicants respectfully submit that this is a purely grammatical issue and that one of ordinary skill in the art would have understood what was meant, given the ex-USA nature of the application. Consequently, no narrowing of the claim results. This change is not in response to any rejection.

The preambles of claims 11 and 12 have each been amended to delete a superfluous “the”. This is a purely stylistic change – not in response to any rejection – that does not affect the scope of the claim.

Claim 12 has been amended to change nouns to gerunds in paragraphs a) and b). Applicants respectfully submit that this change is purely stylistic in nature; and does not affect the scope of the claims.

Amendments to specification and abstract

The abstract is revised herein as requested by the Examiner.

The specification has been revised to correct a typo. This change is not in response to any rejection or objection and does not change any scope or meaning of the application.

REMARKS

Claim Objection

Responsive to the objection to claim 12, the phrase starting with “like” has been deleted from the claim. The deleted material reappears in new claims 14-16 as alternative dependent claims. Applicants respectfully submit that this is not a narrowing amendment.

Art rejections

The art rejections are respectfully traversed, except as indicated below.

Since the references are many and/or complex, Applicants will confine their remarks to those portions of the references cited by the Examiner, except as otherwise indicated. Applicants make no representation as to the contents of other portions of the references.

Any of the Examiner’s rejections and/or points of argument that are not addressed below would appear to be moot in view of the following. Nevertheless, Applicants reserve the right to respond to those rejections and arguments and to advance additional arguments at a later date. No arguments are waived and none of the Examiner’s statements are conceded.

Claim 11

Claim 11 has been amended to recite that the means for changing is adapted to change the degree after assembly of the detector. Applicants respectfully submit that this distinguishes patentably over Albagli where a change in reflectivity would appear to require selecting the screen layer prior to assembly of the detector.

Claim 12

Claim 12 has been amended to recite that the adapting occurs responsive to a scintillation layer control device and after completion of an assembly including the scintillation layer and the control device. Applicants respectfully submit that this limitation distinguishes patentably over

REMARKS

the reference, where change in reflectivity does not appear to be responsive to a reflector control device and appears to occur prior to assembly.

Albagli/Rogers combination

The Examiner combines these two references with respect to a number of the rejections. Applicants respectfully submit that this combination is improper.

First, the two references are in different fields of endeavor. Albagli is in the x-ray arts while Rogers is for gamma rays. One of ordinary skill in the art would not look to Rogers to improve Albagli.

Abagli has a geometry where radiation travels through layers 210, 220, 230 into scintillator layer 150. The scintillator includes crystals made of a material that generates light that is detected by photodetectors 150. The photo detectors then create an image. The layer pointed to as reflective by the Examiner at col. 5, line 48- col. 6, line 17 is shown at 240 and is substantially parallel to the plane of photodetectors at 110.

In Rogers, the reflectors referred to by the Examiner at col. 12, line 51 – col. 13, line 8 appear to be on the walls of the light guides, and therefore perpendicular to the plane of photodetectors 11. Accordingly, one of ordinary skill in the art would not use the coating of Rogers in place of the layer 240 of Abagli as the function of these materials within the device is different.

Even if, hypothetically, one of ordinary skill in the art were to combine Abagli and Rogers, the result would not be the claimed invention. The result would be a device that had both the layer 240 of Abagli parallel to the photodetector layer and the coatings of Rogers on the light guides, since Abagli has both the reflector and the light guides. The result would not be an improvement to the layer 240.

REMARKS

Claims 1 and 17-19

Claim 1 recites that the reflective layer is disposed near at least one surface of the scintillation layer. The claim further recites a control device for changing the reflectivity of the reflector. The portion of Rogers pointed to by the Examiner relates to changing reflectivity inside the scintillation layer, not reflectivity of a reflector adjacent to the scintillation layer.

Applicants accordingly respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness against claim 1.

Nevertheless, new claim 17 is added, which recites that the control device is for altering the reflectivity in at least one single location of the reflective layer over a period of time after assembly of the scintillator, which distinguishes even more clearly over the references, where any changes in reflectivity appear to be achieved prior to assembly of the device.

New claim 18 recites a controllable reflector and a reflector control device. The reflector control device alters the reflectivity of the reflector after assembly of the detector. Applicants respectfully submit that this distinguishes patentably over the references where any change in reflectivity occurs prior to assembly.

New claim 19 recites that the reflector and reflector control device cooperate to achieve time-varying local differences in reflectivity after such assembly. Applicants respectfully submit that this distinguishes patentably over the references where any variation is spatial, not with respect to time, and prior to such assembly.

Claims 5-8

In rejecting claim 1, the Examiner reads the reflecting layer on element 240 of Albagli. Applicants assume that the Examiner is still reading the reflecting layer on the same element in rejecting claims 5-8. The Examiner then appears to be saying in the rejection of claims 5-8 that

REMARKS

layer 240 has a single electrode. Why does the Examiner think so? The only characterization of this layer in the reference that Applicants can find is “optical reflecting layer.” Applicants see no teaching or suggestion of any electrode. Clarification is respectfully requested.

Also, claims 6-8 contain additional specific recitations that have not been read on the references. Applicants accordingly respectfully submit that the rejection fails to satisfy 37 CFR 1.104 with respect to these claims. For instance, claim 8 recites that the absorbing layer substance and/or particles that change their arrangement in response to voltage applied to the electrode. Applicants see no teaching or suggestion of such a structure in the references.

Applicants respectfully submits that they have addressed each issue raised by the Examiner — except for any that were skipped as moot — and that the application is accordingly in condition for allowance. Allowance is therefore respectfully requested.

Respectfully submitted,

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